

REMARKS

At the outset, Applicants request an interview to advance prosecution.

In the Final Office Action, the Examiner rejected claims 1-17 and 35-46 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 7,426,209 to Ayers in view of U.S. Patent No. 6,789,056 to Vinnakota et al. (Vinnakota) in view of U.S. Patent No. 6,738,378 to Tuck et al (Tuck).

By this amendment, Applicants amend claim 2 to more clearly claim the features of that claim and amend claim 36 to correct a minor typographical error.

Claims 1-17 and 35-46 are currently pending in the application.

Applicants thank the Examiner for advancing prosecution by withdrawing the previous rejections under sections 101 and 112.

The Examiner rejected claims 1-17 and 35-46 under 35 U.S.C. § 103(a) as unpatentable over Ayers in view of Vinnakota in view of Tuck. Applicants respectfully traverse this rejection.

Amended claim 1 recites a combination including, for example, the following features:

- allocating each received packet to at least one arrival queue;
- placing each packet in the allocated queue if said arrival queue is not full, otherwise dropping said packet;
- scheduling, by a scheduler coupled to the at least one arrival queue, packets from the arrival queue to at least one transfer queue;
- responsive to transfer of a packet to a transfer queue, generating an interrupt;
- responsive to receipt of an interrupt, allocating the packet from said transfer queue to one of a plurality of processor queues;
- placing the packet in the allocated processor queue if said queue is not full, otherwise dropping said packet; and
- scheduling packets from the processor queues to be processed, wherein the at least one arrival queue, the at least one transfer queue, and the plurality of processor queues are separate queues, wherein the

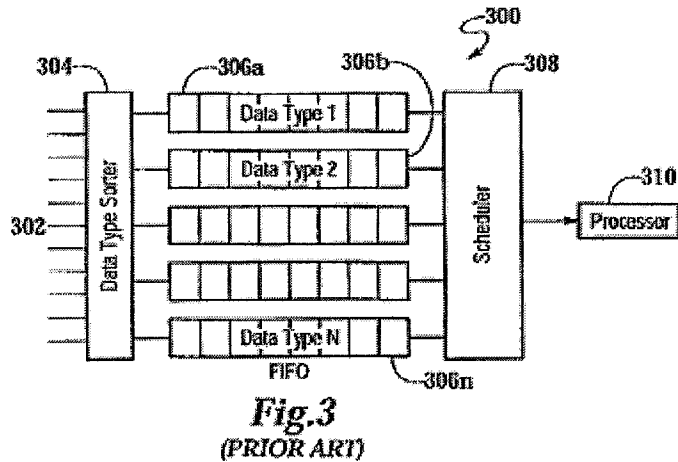
scheduler includes a first quantity N of inputs each corresponding to the at least one arrival queue, the scheduler further including a second quantity M of outputs each corresponding to the at least one transfer queue, wherein the second quantity M is less than or equal to the first quantity N.

The Examiner appears to allege that Ayers at FIG. 3 lines 32-48 discloses the following features of claim 1 “allocating each received packet to at least one arrival queue;” “placing each packet in the allocated queue if said arrival queue is not full, otherwise dropping said packet;” and “scheduling, by a scheduler coupled to the at least one arrival queue, packets from the arrival queue to at least one transfer queue.” But a careful scrutiny of Ayers including FIG. 3 (which is reproduced below) reveals that at best Ayers discloses FIFO queues 306A-306B, nothing more. Indeed, Ayers is completely silent regarding the use of three types of queues (e.g., an arrival queue, a transfer queue, and a processor queue). And, Ayers is completely silent with respect to whether packets should be dropped in an arrival queue. To illustrate, Ayers merely states:

In FIG. 3, messages 302 enter data type sorter 304 where messages 302 are separated by data type. A FIFO queue 306 a , 306 b , . . . 306 n exists for each individual data type. Data type sorter 304 sends messages 302 to FIFO queues 306 a , 306 b , . . . 306 n based on matching data types. Scheduler 308 then pulls messages 302 from FIFO queues 306 a , 306 b , . . . 306 n and sends messages 302 to processor 310 . The primary prioritization is again based on arrival time in queues 306 a , 306 b , . . . 306 n . Scheduler 308 only coordinates the pulling of messages 302 for processing.

Ayers, col. 4, lines 38-48. Thus, Ayers cannot possibly disclose or suggest at least one arrival queue and at least one transfer queue, much less “allocating each received packet to at least one arrival queue;” “placing each packet in the allocated queue if said

arrival queue is not full, otherwise dropping said packet;" and "scheduling, by a scheduler coupled to the at least one arrival queue, packets from the arrival queue to at least one transfer queue."



Moreover, because Ayers fails to disclose the above-noted features, it follows that Ayers fails to disclose or suggest "wherein the at least one arrival queue, the at least one transfer queue, and the plurality of processor queues are separate queues, wherein the scheduler includes a first quantity N of inputs each corresponding to the at least one arrival queue, the scheduler further including a second quantity M of outputs each corresponding to the at least one transfer queue, wherein the second quantity M is less than or equal to the first quantity N," as recited in claim 1 (emphasis added).

Recognizing the shortcoming of Ayers, the Examiner uses Vinnakota. Vinnakota FIG. 2 is reproduced below. But Vinnakota, like Ayers, clearly discloses at best queues 140-150, but queues 140-150 do not constitute the three types of queues (e.g., an arrival queue, a transfer queue, and a processor queue) recited in claim 1.

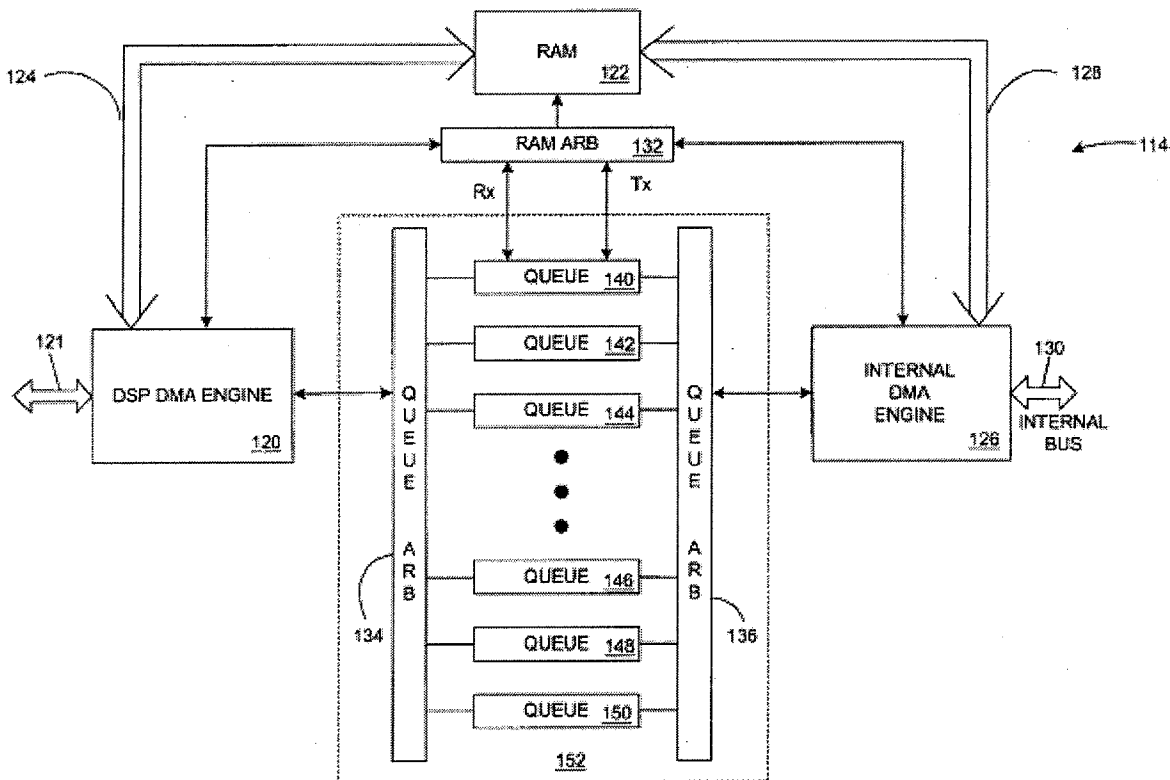


FIG. 2

Moreover, although Tuck each disclose the use of queues, Tuck does not cure the noted deficiencies of Ayers and Vinnakota.

In view of the foregoing, claim 1 is allowable over Ayers, Vinnakota, and Tuck, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of claim 1, as well as claims 2-17 at least by reason of their dependency from independent claim 1, should be withdrawn.

Regarding claim 2, neither Ayers, Vinnakota, and Tuck discloses or suggest that in addition to the scheduler being coupled to the at least one arrival queue as recited in claim 1, "the scheduler is further coupled to the at least one transfer queue." Therefore, claim 2 is allowable over Ayers, Vinnakota, and Tuck, whether taken alone or in

combination, and the rejection under 35 U.S.C. § 103(a) of claim 2 should be withdrawn for this additional reason.

Independent claims 25 and 46, although of different scope, include some of the features noted above with respect to claim 1. For at least the reasons noted above, claims 25 and 46 are allowable over Ayers, Vinnakota, and Tuck, whether taken alone or in combination, and the rejection under 35 U.S.C. § 103(a) of claims 25 and 46, as well as claims 36-45 at least by reason of their dependency, should be withdrawn.

CONCLUSION

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

No fee is believed to be due, however, the Commissioner is hereby authorized to charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 39700-638N01US/NC40070US. If there are any questions regarding these amendments and remarks, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,



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Date: 5 February 2010

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